

**UNITED STATES DISTRICT COURT  
EASTERN DISTRICT OF MISSOURI  
EASTERN DIVISION**

UNITED STATES OF AMERICA,	)	
	)	Case No. 4:19-CR-980 HEA
Plaintiff,	)	
	)	
v.	)	<b>DEFENDANT HAITAO XIANG’S</b>
	)	<b>MEMORANDUM IN SUPPORT</b>
HAITAO XIANG,	)	<b>OF MOTION FOR BILL OF</b>
	)	<b>PARTICULARS</b>
Defendant.	)	

Defendant Haitao Xiang has the right to know the precise trade secret he is charged with stealing.

As it stands, the government alleges that the entirety of an 86-page document is a protectable trade secret and has refused to provide any further detail, despite the fact that the 86-page document is replete with citations to publicly available research papers, textbooks and academic studies.<sup>1</sup> Yet the government has the burden of proving that the alleged trade secret “derives independent economic value, actual or potential, *from not being generally known to, and not being readily ascertainable through proper means* by, another person who can obtain economic value from the disclosure or use of the information.” 18 U.S.C. § 1839 (emphasis added).

Therefore, in order to prepare for trial, Mr. Xiang asked the government to provide information regarding what parts of the 86-page document it contends are a trade secret. In response, the government merely restated its position that the entire 86-page document “is the

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<sup>1</sup> Pursuant to the Court’s protective order, this brief has been filed under seal and a redacted version has been publicly filed on the docket. The redactions, all references to the alleged trade secret, highlight the problem with the government’s position. Many of the redactions black out references to publicly available research papers authored decades ago. Surely there is no reason that information should be shielded from the public or, for that matter, from Mr. Xiang, who is not still not permitted to view the document under the current protective order.

trade secret.” That cannot be: the document is replete with information that is obviously within the public domain and generally known to those in the industry. Mr. Xiang is not required to guess which parts of the document the government may ultimately claim at trial are a protectable trade secret. *See, e.g., United States v. Liu*, Case No. 13-CR-226, Dkt. 180 at 4 (W.D.N.Y. Oct. 20, 2016) (“[T]he government may not force a defendant or this court to guess at which trade secrets it will seek to prove at trial.”). Therefore, the Court should order the government to file a bill of particulars that describes with particularity what trade secret information it contends Mr. Xiang is alleged to have misappropriated.<sup>2</sup>

## **FACTUAL BACKGROUND**

### **I. The Indictment**

The indictment charges Mr. Xiang with four counts of actual or attempted violation of the Economic Espionage Act, 18 U.S.C. § 1831, and four counts of actual or attempted theft of trade secrets in violation of 18 U.S.C. § 1832. The government’s charges relate entirely to Mr. Xiang’s alleged possession of one document, a Microsoft Word file entitled “Mid-Level Documentation for the Nitrogen Advisor Model,” that the government refers to in the indictment as the Nutrient Optimizer.<sup>3</sup> The indictment alleges that the Nutrient Optimizer is a “proprietary predictive algorithm to assist farmers in the optimal application of plant nutrients.” Doc. 17 at ¶ 13. The indictment further alleges that the “scientific foundation of the Nutrient Optimizer was a point-based biogeochemical process model that simulated biological, chemical, hydrological, and thermal processes occurring within an agricultural field” that included “software modules.” *Id.* at

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<sup>2</sup> Federal Rule of Criminal Procedure 7(f) permits a defendant to move for a bill of particulars before or within 14 days of arraignment, “or at a later time if the court permits.” Because the government produced the alleged trade secret months after the arraignment, Mr. Xiang respectfully requests that the Court permit him to move the Court for a bill of particulars.

<sup>3</sup> The alleged trade secret has been filed with the Court as an exhibit under seal, pursuant to the terms of the Court’s protective order.

¶¶ 13, 15. According to the indictment, each of the six modules in the Nutrient Optimizer included “patterns, plans, compilations, program devices, formulas, designs, methods, techniques, processes, procedures, programs, or codes.” *Id.* at ¶ 15(a-f).<sup>4</sup>

## **II. The Alleged Trade Secret Produced by the Government Is Inconsistent with the Allegations in the Indictment**

Almost six months after the government charged Mr. Xiang, during which time he has been held continually in custody, the government finally produced a copy of the Mid-Level Documentation for the Nitrogen Advisor Model (the “Document” or “alleged trade secret”). During counsel’s recent review of the alleged trade secret, it became readily apparent that the government’s allegations in the indictment are wholly inconsistent with the Document. The Document is not a “proprietary predictive algorithm” and contains no “software modules.” In fact, the Document does not mention “Nutrient Optimizer” at all. Rather, the Document is an 86-page draft paper titled [REDACTED], which describes in somewhat broad terms the background information related to [REDACTED].<sup>5</sup>

Even more confusing, in the briefing on the government’s motion for protective order, Bayer did not even substantively mention the Document, even though the Document is, according to the indictment and the government’s statements to this Court and counsel, the only alleged trade secret at issue in this case. Instead, Bayer’s brief focused on Nutrient Optimizer, which it described as a piece of software whose “algorithms receive data” and then “provides

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<sup>4</sup> This phrase is taken directly from the definitions section of the criminal trade secret statute, 18 U.S.C. § 1839.

<sup>5</sup> [REDACTED]

carefully tailored recommendations about how best to cultivate a particular field's crops, such as precise recommendations about the amount of fertilizer to apply." Doc. 48 at 1-2. [REDACTED]

[REDACTED]

[REDACTED] In short, it seems clear that the Document is not the Nutrient Optimizer, despite the fact that the government refers to it that way in the indictment.

Moreover, the Document is replete with indications that it is merely a draft that is intended to be further refined and then widely disseminated. [REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

The Document also includes [REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

Confounding matters further, the Document includes [REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

Despite the inconsistencies among the indictment, the Document, the government's statements to counsel, and Bayer's written submissions to the Court, the government has refused to provide any specific information about its allegations and continues to contend that the entire Document "is the trade secret."

## **LAW & ARGUMENT**

Under Federal Rule of Criminal Procedure 7(f), the Court may direct the government to file a bill of particulars “to inform the defendant of the nature of the charges against him and to prevent or minimize the element of surprise at trial.” *United States v. Wessels*, 12 F.3d 746, 750 (8th Cir. 1993). Even where an indictment may be facially sufficient to state an offense, a court should direct the filing of a bill of particulars where it is needed to inform the defendant with “sufficient precision” of the charges he faces. *United States v. Davis*, 854 F.3d 1276, 1293 (11th Cir. 2017). Rule 7(f) “requires that the defendant be given the benefit of doubt in grey areas.” *United States v. Rogers*, 617 F. Supp. 1024, 1027-28 (D. Colo. 1985); *see also United States v. Smith*, 16 F.R.D. 372, 374-375 (W.D. Mo. 1954) (Rule 7(f)’s “proper office is to furnish to the defendant *further information* respecting the charge stated in the indictment when necessary to the preparation of his defense, and to avoid prejudicial surprise at the trial, and when necessary for those purposes, is to be granted even though it requires the furnishing of information which in other circumstances would not be required because evidentiary in nature, and an accused is entitled to this as of right.”) (emphasis in original) (internal quotations omitted).

Courts routinely grant motions for bills of particulars in complex cases involving alleged theft of trade secrets such as the case against Mr. Xiang. In *United States v. Liew*, though the court found the indictment provided constitutionally adequate notice of the charges and voluminous discovery had been produced, the court ordered the government to provide a bill of particulars “in order to minimize surprise at trial and to assist in the expeditious and efficient resolution of [the] matter”—a necessary objective where (as here) the defendant remained incarcerated. *United States v. Liew*, No. 11-573, 2013 WL 2605126, at \*22 (N.D. Cal. June 11, 2013). What is more, “in light of the fact that these counts charge Defendants with attempt, the

United States shall provide a bill of particulars that sets forth its theory of what Defendants' reasonably believed the trade secret to be, *e.g.*, whether the United States will argue that Defendants reasonably believed" the entire process or a subset of the process at issue to be a trade secret. *Id.* at \*22-23.

*United States v. Ward* is directly on point. In *Ward*, the court required the entry of an amended bill of particulars (after having already ordered one) where the government alleged that an entire technical manual was a trade secret. Case No. 11-02123 (E.D. Wa. June 21, 2012), Dkt. 175 at 5-6. The court rejected the government's assertion that it had sufficiently identified the charged trade secret, saying, "The manual is voluminous, and from the Government's statements in its bill of particulars it must be concluded that each page of the manual could contain one or more possible trade secrets. This places the Defendant in the position of having to guess which portions of the manual will be the subject of the Government's case-in-chief or to prepare to argue and refute evidence that each sentence or diagram contained in the manual is not generally known or readily discernible by the public." *Id.* The court, therefore, required the government to disclose any subparts of the manual, "specifically, either by page and paragraph numbers or by chapter or subchapter headings, that the Government intend[ed] to argue are trade secrets." The court went on to warn, "If the Government is contending that the entire manual constitutes one trade secret, then the Government is on notice that the Court's present understanding of the law would compel instructing the jury that should any part of the manual be public, and therefore not a trade secret, then the manual as a whole cannot constitute a trade secret." *Id.* Mr. Xiang is in the same position as the defendant in *Ward* and seeks the same relief.

The court reached the same result in *United States v. Liu*. Liu was charged with theft of trade secrets allegedly "contained in a Powerpoint presentation . . . which contained scientific,

technical, mathematical and engineering information pertaining to electric actuation system technology with both military and civilian wind turbine applications.” *United States v. Liu*, Case No. 13-cr-226 (W.D.N.Y. Oct. 20, 2016), Dkt. 180 at 1. In granting defendant’s motion for a bill of particulars, the court noted that “‘one expects a trade secret to be rich in detail, because a process described in general terms will usually be widely known . . . and not a trade secret.’” *Id.* at 3 (citing *Big Vision Private Ltd. v. E.I. DuPont De Nemours & Co.*, 1 F. Supp. 3d 224, 263 (S.D.N.Y. 2014), *aff’d*, 610 Fed. App’x 69 (2d Cir. 2015)). Therefore, the court held, “the party claiming a trade secret must ‘describe[] the alleged trade secret with adequate specificity to inform the defendants what it is alleged to have misappropriated.’” *Liu*, Case No. 13-cr-226, Dkt. 180 at 4 (citing *Sit-Up Ltd. V. IAC/InterActiveCorp.*, 2008 WL 463884, \*11 (S.D.N.Y. 2008)). Because “the government admitted that the government does not contend that every PowerPoint slide necessarily contains a trade secret, or that every portion of any particular slide constitutes a trade secret . . . it is impossible to ascertain from a review of the slides what the government claims to be trade secrets.” *Id.* The *Liu* court concluded that “the government may not force a defendant or [the] court to guess at which trade secrets it will seek to prove at trial,” and ordered the government to “furnish defendant with a bill of particulars specifically identifying each trade secret it will seek to prove at trial[.]” *Id.* at 4, 6.

In this case, Mr. Xiang does not seek a bill of particulars as a discovery tool or to seek early disclosure of the government’s trial evidence. *Wessels*, 12 F.3d at 750. Indeed, the government has produced the document it contends is the only trade secret at issue. It seeks a bill of particulars for the same reason as the defendants in *Liu* and *Ward*: because Mr. Xiang cannot adequately defend himself by guessing what portions of the Document the government may ultimately argue at trial are a trade secret.



## **CONCLUSION**

Mr. Xiang has been incarcerated for over six months and is no closer to understanding the specific alleged trade secret the government intends to present at trial. This Court should order the government to expeditiously file a bill of particulars identifying with precision the allegedly stolen trade secret.

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Respectfully submitted,

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